

ABSTRACT

The invention includes a Doherty power amplifier system having a Doherty power amplifier electrically connected to a Doherty bias circuit. The Doherty amplifier includes a carrier amplifier and peaking amplifier. The Doherty bias circuit

5 includes a current mirror and a first node that works to maintain a constant current in the current mirror as a function of a base voltage at the first node. The base voltage that results in a constant current is passed from a current mirror circuit to the carrier amplifier. The base voltage is at least one of scaled and shifted to produce a second voltage at a second node by employing a scaling/level shifting circuit. The

10 scaling/level shifting circuit includes an input electronically connected to the current mirror circuit. The second voltage is passed through a voltage buffer to the peaking amplifier. An effect of the invention is to generate bias voltages for a Doherty amplifier that dynamically adjust to compensate for manufacturing process and environmental changes.